



SEQUENCE LISTING

<110> Reed, John

<120> Regulation of BCL-2 Gene Expression

<130> 10412-011

<140> 09/375,514

<141> 1999-08-17

<160> 29

<170> PatentIn version 3.0

<210> 1

<211> 20

<212> DNA

<213> Homo sapiens

<400> 1

cagcgtgcgc catccttccc 20

<210> 2

<211> 35

<212> DNA

<213> Homo sapiens

<400> 2

cttttctctt gggaaggatg gcgcacgctg ggaga 35

<210> 3

<211> 20

<212> DNA

<213> Homo sapiens

<400> 3

gatgcaccta cccagcctcc 20

<210> 4

<211> 33

<212> DNA

<213> Homo sapiens

<400> 4

acgggggtacg gaggctgggt aggtgcatct ggt 33

<210> 5

<211> 20

<212> DNA

<213> Homo sapiens

<400> 5

acaaaggcat cctgcagttg 20

<210> 6

<211> 36

<212> DNA

<213> Homo sapiens
 <400> 6
 cccccaactg caggatgcct ttgtggaact gtacgg 36
 <210> 7
 <211> 20
 <212> DNA
 <213> Homo sapiens
 <400> 7
 gggaaggatg gcgcacgctg 20
 <210> 8
 <211> 17
 <212> DNA
 <213> Homo sapiens
 <400> 8
 cgcggtgcgac cctcttg 17
 <210> 9
 <211> 17
 <212> DNA
 <213> Homo sapiens
 <400> 9
 taccgctgc gaccctc 17
 <210> 10
 <211> 17
 <212> DNA
 <213> Homo sapiens
 <400> 10
 tcctaccgcg tgcgacc 17
 <210> 11
 <211> 17
 <212> DNA
 <213> Homo sapiens
 <400> 11
 ccttcctacc gcgtgcg 17
 <210> 12
 <211> 17
 <212> DNA
 <213> Homo sapiens
 <400> 12
 gacccttcct accgcgt 17
 <210> 13
 <211> 17
 <212> DNA
 <213> Homo sapiens
 <400> 13
 ggagaccctt cctaccg 17

<210>	14	
<211>	15	
<212>	DNA	
<213>	Homo sapiens	
<400>	14	
gcggcggcag	cgcg	15
<210>	15	
<211>	15	
<212>	DNA	
<213>	Homo sapiens	
<400>	15	
cggcggggcg	acgga	15
<210>	16	
<211>	16	
<212>	DNA	
<213>	Homo sapiens	
<400>	16	
cgggagcgcg	gcgggc	16
<210>	17	
<211>	18	
<212>	DNA	
<213>	Homo sapiens	
<400>	17	
tctcccagcg	tgcccat	18
<210>	18	
<211>	18	
<212>	DNA	
<213>	Homo sapiens	
<400>	18	
tgactcacg	ctcgccct	18
<210>	19	
<211>	5086	
<212>	DNA	
<213>	Homo sapiens	
<400>	19	
gcgcccgcgc	ctccgcgcgc cctgcccgcc cgcccgccgc gctcccgccc gccgctctcc	60
gtggccccgc	cgcgctgccg ccgcgcgcgc tgccagcgaa ggtgccgggg ctccggggccc	120
tccctgccgg	cggccgtcag cgctcggagc gaactgcgcg acgggaggtc cgggaggcga	180
ccgtagtcgc	gccgccgcgc aggaccagga ggaggagaaa gggcgcgcag cccggaggcg	240
gggtgcgcgc	gtgggggtgca gcggaagagg gggccaggg gggagaactt cgtagcagtc	300
atccttttta	ggaaaagagg gaaaaataa aaccctcccc caccacctcc ttctccccac	360

ccctcgccgc	accacacaca	gcgcgggctt	ctagcgctcg	gcaccggcgg	gccagggcgc	420
tcctgccttc	atztatccag	cagcttttcg	gaaaatgcat	ttgctgttcg	gagtttaatc	480
agaagacgat	tcctgcctcc	gtccccggct	ccttcacgt	cccatctccc	ctgtctctct	540
cctggggagg	cgtgaagcgg	tcccgtggat	agagattcat	gcctgtgtcc	gcgcgtgtgt	600
gcgcgcgtat	aaattgccga	gaaggggaaa	acatcacagg	acttctgcga	ataccggact	660
gaaaattgta	attcatctgc	cgccgcgcgt	gccaaaaaaa	aactcgagct	cttgagatct	720
ccggttggga	ttcctgcgga	ttgacatttc	tgtgaagcag	aagtctggga	atcgatctgg	780
aaatcctcct	aatttttact	ccctctcccc	ccgactcctg	attcattggg	aagtttcaaa	840
tcagctataa	ctggagagtg	ctgaagattg	atgggatcgt	tgccctatgc	atttgttttg	900
gttttacaaa	aaggaaactt	gacagaggat	catgctgtac	ttaaaaaata	caagtaagtc	960
tcgcacagga	aattggttta	atgtaacttt	caatggaaac	ctttgagatt	ttttacttaa	1020
agtgcattcg	agtaaattta	atttccaggc	agcttaatac	attgttttta	gccgtgttac	1080
ttgtagtggtg	tatgcctgc	tttactcag	tgtgtacagg	gaaacgcacc	tgatttttta	1140
cttattagtt	tgttttttct	ttaacctttc	agcatcacag	aggaagtaga	ctgatattaa	1200
caatacttac	taataataac	gtgcctcatg	aaataaagat	ccgaaaggaa	ttggaataaa	1260
aatttcctgc	gtctcatgcc	aagagggaaa	caccagaatc	aagtgttccg	cgtgattgaa	1320
gacacccccct	cgtccaagaa	tgcaaagcac	atccaataaa	atagctggat	tataactcct	1380
cttctttctc	tggggggcgt	ggggtgggag	ctggggcgag	agggtgccgt	ggcccccggt	1440
gcttttcctc	tgggaaggat	ggcgcacgct	gggagaacgg	ggtacgacaa	ccgggagata	1500
gtgatgaagt	acatccatta	taagctgtcg	cagaggggct	acgagtggga	tgccggagat	1560
gtgggcgcgc	cgcccccggg	ggccgcccc	gcaccgggca	tcttctcctc	ccagccccggg	1620
cacacgcccc	atccagccgc	atcccgcgac	ccggctcgcca	ggacctcgcc	gctgcagacc	1680
ccggctgccc	ccggcgccgc	cgcggggcct	gcgctcagcc	cggtgccacc	tgtgggtccac	1740
ctggccctcc	gccaaagcgg	cgacgacttc	tcccgcgcgt	accgcggcga	cttcgccgag	1800
atgtccagcc	agctgcacct	gacgcccttc	accgcgcggg	gacgctttgc	cacggtggtg	1860
gaggagctct	tcagggacgg	ggtgaactgg	gggaggattg	tggccttctt	tgagttcggt	1920
ggggtcatgt	gtgtggagag	cgtcaaccgg	gagatgtcgc	ccctggtgga	caacatcgcc	1980
ctgtggatga	ctgagtacct	gaaccggcac	ctgcacacct	ggatccagga	taacggaggc	2040
tgggatgcct	ttgtggaact	gtacggcccc	agcatgcggc	ctctgtttga	tttctcctgg	2100
ctgtctctga	agactctgct	cagtttggcc	ctgggtgggag	cttgcatcac	cctgggtgcc	2160
tatctgagcc	acaagtgaag	tcaacatgcc	tgccccaaac	aaatatgcaa	aaggttcact	2220

aaagcagtag	aaataatatg	cattgtcagt	gatgtacat	gaaacaaagc	tgcaggctgt	2280
ttaagaaaaa	ataacacaca	tataaacatc	acacacacag	acagacacac	acacacacaa	2340
caattaacag	tcttcaggca	aaacgtcgaa	tcagctatct	actgccaaag	ggaaatatca	2400
tttatttttt	acattattaa	gaaaaaagat	ttattttatt	aagacagtcc	catcaaaact	2460
ccgtcttttg	aaatccgacc	actaattgcc	aaacaccgct	tcgtgtggct	ccacctggat	2520
gttctgtgcc	tgtaaacata	gattcgcttt	ccatgttggt	ggccggatca	ccatctgaag	2580
agcagacgga	tggaaaaagg	acctgatcat	tggggaagct	ggctttcttg	ctgctggagg	2640
ctggggagaa	ggtgttcatt	cacttgcatt	tctttgccct	gggggcgtga	tattaacaga	2700
gggagggttc	ccgtgggggg	aagtccatgc	ctccctggcc	tgaagaagag	actctttgca	2760
tatgactcac	atgatgcata	cctgggtgga	ggaaaagagt	tgggaacttc	agatggacct	2820
agtaccact	gagatttcca	cgccgaagga	cagcgatggg	aaaaatgccc	ttaaatacata	2880
ggaaagtatt	tttttaagct	accaattgtg	ccgagaaaag	catttttagca	atttatataa	2940
tatcatccag	taccttaaac	cctgattgtg	tatattcata	tattttggat	acgcaccccc	3000
caactcccaa	tactggctct	gtctgagtaa	gaaacagaat	cctctggaac	ttgaggaagt	3060
gaacatttcg	gtgacttccg	atcaggaagg	ctagagttac	ccagagcatc	aggccgccac	3120
aagtgcctgc	ttttaggaga	ccgaagtccg	cagaacctac	ctgtgtccca	gcttggaggc	3180
ctggtcctgg	aactgagccg	ggcctcact	ggcctcctcc	agggatgatc	aacagggtag	3240
tgtggtctcc	gaatgtctgg	aagctgatgg	atggagctca	gaattccact	gtcaagaaag	3300
agcagtagag	gggtgtggct	gggcctgtca	ccctggggcc	ctccaggtag	gcccgttttc	3360
acgtggagca	taggagccac	gacccttctt	aagacatgta	tcactgtaga	gggaaggaac	3420
agaggccctg	ggccttccta	tcagaaggac	atggtgaagg	ctgggaacgt	gaggagaggc	3480
aatggccacg	gcccattttg	gctgtagcac	atggcacggt	ggctgtgtgg	ccttggccac	3540
ctgtgagttt	aaagcaaggc	tttaaataac	tttgagagag	gtcacaaaat	ctaaaagaag	3600
cattgaagtg	aggtgtcatg	gattaattga	cccctgtcta	tgggaattaca	tgtaaaacat	3660
tatcttgtca	ctgtagtttg	gttttatttg	aaaacctgac	aaaaaaaaag	ttccagggtg	3720
ggaatatggg	ggttatctgt	acatcctggg	gcattaaaaa	aaaatcaatg	gtggggaact	3780
ataaagaagt	aacaaaagaa	gtgacatctt	cagcaaataa	actaggaaat	ttttttttct	3840
tccagttag	aatcagcctt	gaaacattga	tggaaataact	ctgtggcatt	attgcattat	3900
ataccattta	tctgtattaa	ctttggaatg	tactctgttc	aatgtttaat	gctgtgggtg	3960
atatttcgaa	agctgcttta	aaaaaataca	tgcactctcag	cgtttttttg	tttttaattg	4020

tatttagtta	tggcctatac	actatattgtg	agcaaagggtg	atcgtttttct	gtttgagatt	4080
tttatctctt	gattcttcaa	aagcattctg	agaagggtgag	ataagccctg	agtctcagct	4140
acctaagaaa	aacctggatg	tcaactggcca	ctgaggagct	ttgtttcaac	caagtcattg	4200
gcatttccac	gtcaacagaa	ttgtttattg	tgacagtatt	atctgttgtc	cctttgacct	4260
tgtttcttga	agggtttcctc	gtccctgggc	aattccgcat	ttaattcatg	gtattcagga	4320
ttacatgcat	gtttgggttaa	acccatgaga	ttcattcagt	taaaaatcca	gatggcgaat	4380
gaccagcaga	ttcaaactta	tggtgggttg	accttttagag	agttgcttta	cgtggcctgt	4440
ttcaacacag	acccaccag	agccctcctg	ccctccttcc	gcgggggctt	tctcatggct	4500
gtccttcagg	gtcttcctga	aatgcagtgg	tcgttacgct	ccaccaagaa	agcaggaaac	4560
ctgtgggatg	aagccagacc	tccccggcgg	gcctcaggga	acagaatgat	cagacctttg	4620
aatgattcta	atTTTTaagc	aaaatattat	tttatgaaag	gtttacattg	tcaaagtgat	4680
gaatatggaa	tatccaatcc	tgtgctgcta	tcctgccaaa	atcattttta	tggagtcagt	4740
ttgcagtatg	ctccacgtgg	taagatcctc	caagctgctt	tagaagtaac	aatgaagaac	4800
gtggacgttt	ttaatatata	gcctgttttg	tcttttggtg	ttgttcaaac	gggattcaca	4860
gagtatttga	aaaatgtata	tatatataga	ggtcacgggg	gctaattgct	agctggctgc	4920
cctttgctgt	gggggtttgt	tacctgggtt	taataacagt	aatgtgccc	agcctcttgg	4980
ccccagaact	gtacagtatt	gtggctgcac	ttgctctaag	agtagttgat	gttgcatttt	5040
ccttattgtt	aaaaacatgt	tagaagcaat	gaatgtatat	aaaagc		5086

<210> 20
 <211> 717
 <212> DNA
 <213> Homo sapiens

<400> 20

atggcgacg	ctgggagaa	ggggtacgac	aaccgggaga	tagtgatgaa	gtacatccat	60
tataagctgt	cgcagagggg	ctacgagtgg	gatgcgggag	atgtgggagc	cgcgcccccg	120
ggggccgccc	ccgcaccggg	catcttctcc	tcccagcccc	ggcacacgcc	ccatccagcc	180
gcatcccgcg	acccggctgc	caggacctcg	ccgctgcaga	ccccggctgc	ccccggcgcc	240
gccgcggggc	ctgcgctcag	cccgggtgcca	cctgtgggtcc	acctggccct	ccgccaagcc	300
ggcgacgact	tctcccgccg	ctaccgcggc	gacttcgccc	agatgtccag	ccagctgcac	360
ctgacgccct	tcaccgcgcg	gggacgcttt	gccacgggtg	tggaggagct	cttcaggggac	420
ggggtgaact	gggggaggat	tgtggccttc	tttgagtctg	gtgggggtcat	gtgtgtggag	480
agcgtcaacc	gggagatgtc	gcccctgggtg	gacaacatcg	ccctgtggat	gactgagtac	540

ctgaaccggc acctgcacac ctggatccag gataacggag gctgggatgc ctttgtggaa 600
 ctgtacggcc ccagcatgcg gcctctgttt gatttctcct ggctgtctct gaagactctg 660
 ctcagtttgg ccctggtggg agcttgcata accctgggtg cctatctgag ccacaag 717

<210> 21
 <211> 239
 <212> PRT
 <213> Homo sapiens

<400> 21

Met	Ala	His	Ala	Gly	Arg	Thr	Gly	Tyr	Asp	Asn	Arg	Glu	Ile	Val	Met	1	5	10	15
Lys	Tyr	Ile	His	Tyr	Lys	Leu	Ser	Gln	Arg	Gly	Tyr	Glu	Trp	Asp	Ala	20	25	30	
Gly	Asp	Val	Gly	Ala	Ala	Pro	Pro	Gly	Ala	Ala	Pro	Ala	Pro	Gly	Ile	35	40	45	
Phe	Ser	Ser	Gln	Pro	Gly	His	Thr	Pro	His	Pro	Ala	Ala	Ser	Arg	Asp	50	55	60	
Pro	Val	Ala	Arg	Thr	Ser	Pro	Leu	Gln	Thr	Pro	Ala	Ala	Pro	Gly	Ala	65	70	75	
Ala	Ala	Gly	Pro	Ala	Leu	Ser	Pro	Val	Pro	Pro	Val	Val	His	Leu	Ala	85	90	95	
Leu	Arg	Gln	Ala	Gly	Asp	Asp	Phe	Ser	Arg	Arg	Tyr	Arg	Gly	Asp	Phe	100	105	110	
Ala	Glu	Met	Ser	Ser	Gln	Leu	His	Leu	Thr	Pro	Phe	Thr	Ala	Arg	Gly	115	120	125	
Arg	Phe	Ala	Thr	Val	Val	Glu	Glu	Leu	Phe	Arg	Asp	Gly	Val	Asn	Trp	130	135	140	
Gly	Arg	Ile	Val	Ala	Phe	Phe	Glu	Phe	Gly	Gly	Val	Met	Cys	Val	Glu	145	150	155	
Ser	Val	Asn	Arg	Glu	Met	Ser	Pro	Leu	Val	Asp	Asn	Ile	Ala	Leu	Trp	165	170	175	
Met	Thr	Glu	Tyr	Leu	Asn	Arg	His	Leu	His	Thr	Trp	Ile	Gln	Asp	Asn	180	185	190	
Gly	Gly	Trp	Asp	Ala	Phe	Val	Glu	Leu	Tyr	Gly	Pro	Ser	Met	Arg	Pro	195	200	205	
Leu	Phe	Asp	Phe	Ser	Trp	Leu	Ser	Leu	Lys	Thr	Leu	Leu	Ser	Leu	Ala	210	215	220	
Leu	Val	Gly	Ala	Cys	Ile	Thr	Leu	Gly	Ala	Tyr	Leu	Ser	His	Lys		225	230	235	

<210> 22
 <211> 615

<212> DNA
 <213> Homo sapiens

<400> 22

```

atggcgcacg ctgggagaac ggggtacgac aaccgggaga tagtgatgaa gtacatccat 60
tataagctgt cgcagagggg ctacgagtgg gatgcgggag atgtgggagc cgcgcccccg 120
ggggccgccc ccgcaccggg catcttctcc tcccagcccc ggcacacgcc ccatccagcc 180
gcatcccgcg acccggtcgc caggacctcg ccgctgcaga ccccggtcgc ccccggcgcc 240
gccgcggggc ctgcgctcag cccggtgcc cctgtggtcc acctggccct ccgccaagcc 300
ggcgacgact tctcccgccg ctaccgcggc gacttcgccc agatgtccag ccagctgcac 360
ctgacgccct tcaccgcgcg gggacgcttt gccacggtgg tggaggagct cttcaggga 420
ggggtgaact gggggaggat tgtggccttc tttgagttcg gtgggggcat gtgtgtggag 480
agcgtcaacc gggagatgtc gccctggtg gacaacatcg ccctgtggat gactgagtac 540
ctgaaccggc acctgcacac ctggatccag gataacggag gctgggtagg tgcattctggt 600
gatgtgagtc tgggc

```

615

<210> 23
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 23

```

Met Ala His Ala Gly Arg Thr Gly Tyr Asp Asn Arg Glu Ile Val Met
1           5           10           15

Lys Tyr Ile His Tyr Lys Leu Ser Gln Arg Gly Tyr Glu Trp Asp Ala
          20           25           30

Gly Asp Val Gly Ala Ala Pro Pro Gly Ala Ala Pro Ala Pro Gly Ile
          35           40           45

Phe Ser Ser Gln Pro Gly His Thr Pro His Pro Ala Ala Ser Arg Asp
          50           55           60

Pro Val Ala Arg Thr Ser Pro Leu Gln Thr Pro Ala Ala Pro Gly Ala
65           70           75           80

Ala Ala Gly Pro Ala Leu Ser Pro Val Pro Pro Val Val His Leu Ala
          85           90           95

Leu Arg Gln Ala Gly Asp Asp Phe Ser Arg Arg Tyr Arg Gly Asp Phe
          100          105          110

Ala Glu Met Ser Ser Gln Leu His Leu Thr Pro Phe Thr Ala Arg Gly
          115          120          125

Arg Phe Ala Thr Val Val Glu Glu Leu Phe Arg Asp Gly Val Asn Trp
          130          135          140

```


Gly Arg Ile Val Ala Phe Phe Glu Phe Gly Gly Val Met Cys Val Glu
 145 150 155 160

. Ser Val Asn Arg Glu Met Ser Pro Leu Val Asp Asn Ile Ala Leu Trp
 165 170 175

• Met Thr Glu Tyr Leu Asn Arg His Leu His Thr Trp Ile Gln Asp Asn
 180 185 190

Gly Gly Trp Val Gly Ala Ser Gly Asp Val Ser Leu Gly
 . 195 200 205

<210> 24
 <211> 18
 <212> DNA
 <213> Homo sapiens

<400> 24
 tctcccagcg tgcgccat 18

<210> 25
 <211> 18
 <212> DNA
 <213> Homo sapiens

<400> 25
 tgcactcacg ctcggcct 18

<210> 26
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 26
 gcgcggcgagg cgggcgaggca 20

<210> 27
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 27
 gggcgaggagg cgggcgaggcg 20

<210> 28
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 28
 agcggcggcg gcggcagcgc 20

<210> 29
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 29
 gggcggggaa gggcgcccgc 20